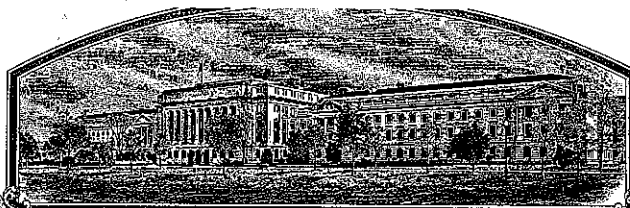


No.

9900278



THE UNITED STATES OF AMERICA

TO ALL TO WHOM THESE PRESENTS SHALL COME:

DEKALB Genetics Corporation

Whereas, THERE HAS BEEN PRESENTED TO THE

Secretary of Agriculture

AN APPLICATION REQUESTING A CERTIFICATE OF PROTECTION FOR AN ALLEGED DISTINCT VARIETY OF SEXUALLY REPRODUCED, OR TUBER PROPAGATED PLANT, THE NAME AND DESCRIPTION OF WHICH ARE CONTAINED IN THE APPLICATION AND EXHIBITS, A COPY OF WHICH IS HEREUNTO ANNEXED AND MADE A PART HEREOF, AND THE VARIOUS REQUIREMENTS OF LAW IN SUCH CASES MADE AND PROVIDED HAVE BEEN COMPLIED WITH, AND THE TITLE THERETO IS, FROM THE RECORDS OF THE PLANT VARIETY PROTECTION OFFICE, IN THE APPLICANT(S) INDICATED IN THE SAID COPY, AND WHEREAS, UPON DUE EXAMINATION MADE, THE SAID APPLICANT(S) IS (ARE) ADJUDGED TO BE ENTITLED TO A CERTIFICATE OF PLANT VARIETY PROTECTION UNDER THE LAW.

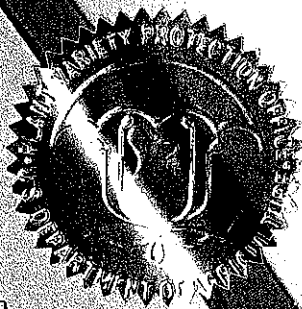
NOW, THEREFORE, THIS CERTIFICATE OF PLANT VARIETY PROTECTION IS TO GRANT UNTO THE SAID APPLICANT(S) AND THE SUCCESSORS, HEIRS OR ASSIGNS OF THE SAID APPLICANT(S) FOR THE TERM OF TWENTY YEARS FROM THE DATE OF THIS GRANT, SUBJECT TO THE PAYMENT OF THE REQUIRED FEES AND PERIODIC REPLENISHMENT OF VIABLE BASIC SEED OF THE VARIETY IN A PUBLIC REPOSITORY AS PROVIDED BY LAW, THE RIGHT TO EXCLUDE OTHERS FROM SELLING THE VARIETY, OR OFFERING IT FOR SALE, OR REPRODUCING IT, OR IMPORTING IT, OR EXPORTING IT, OR CONDITIONING IT FOR PROPAGATION, OR STOCKING IT FOR ANY OF THE FOREGOING PURPOSE, OR USING IT IN PRODUCING A HYBRID OR DIFFERENT VARIETY THEREFROM, TO THE EXTENT PROVIDED BY THE PLANT VARIETY PROTECTION ACT. (84 STAT. 1542, AS AMENDED, 7 U.S.C. 2321 ET SEQ.)

SOYBEAN

'CX414cRR'

In Testimony Whereof, I have hereunto set my hand and caused the seal of the Plant Variety Protection Office to be affixed at the City of Washington, D.C. this thirtieth day of January, in the year of our Lord two thousand one.

Attest:



[Signature]
Acting Commissioner
Plant Variety Protection Office
Agricultural Marketing Service

[Signature]
Secretary of Agriculture

U.S. DEPARTMENT OF AGRICULTURE
AGRICULTURAL MARKETING SERVICE
SCIENCE AND TECHNOLOGY - PLANT VARIETY PROTECTION OFFICE

The following statements are made in accordance with the Privacy Act of 1974 (5 U.S.C. 552a) and the Paperwork Reduction Act (PRA) of 1995.

APPLICATION FOR PLANT VARIETY PROTECTION CERTIFICATE

(Instructions and information collection burden statement on reverse)

Application is required in order to determine if a plant variety protection certificate is to be issued (7 U.S.C. 2421). Information is held confidential until certificate is issued (7 U.S.C. 2426).

1 NAME OF OWNER

DEKALB Genetics Corporation

2. TEMPORARY DESIGNATION OR EXPERIMENTAL NAME

EX841BRR

3 VARIETY NAME

CX414cRR

4 ADDRESS (Street and No., or R.F.D. No., City, State, and ZIP Code, and Country)

3100 Sycamore Road
DeKalb, IL 60115
U.S.A.

5 TELEPHONE (include area code)

(815) 758-9281

FOR OFFICIAL USE ONLY

PVPO NUMBER

9900278

6 FAX (include area code)

(815) 758-3117

FILING DATE

5-7-1999

7 IF THE OWNER NAMED IS NOT A "PERSON", GIVE FORM OF ORGANIZATION (corporation, partnership, association, etc.)

Corporation

8. IF INCORPORATED, GIVE STATE OF INCORPORATION

Delaware

9. DATE OF INCORPORATION

June 15, 1988

10 NAME AND ADDRESS OF OWNER REPRESENTATIVE(S) TO SERVE IN THIS APPLICATION. (First person listed will receive all papers)

Timothy R. Kain
DEKALB Genetics Corp.
3100 Sycamore Road
DeKalb, IL 60115

Donald Traut
DEKALB Genetics Corp.
3100 Sycamore Road
DeKalb, IL 60115

FILING AND EXAMINATION FEES:

F E E S \$ 2450.00

DATE 5-7-1999

CERTIFICATION FEE:

F E E S \$ 320.00

DATE 11-14-2000

11 TELEPHONE (Include area code)

(815) 758-9281

12. FAX (include area code)

(815) 758-3117

13. E_MAIL

tkain@dekalb.com

14 CROP KIND (Common Name)

Soybean

15. GENUS AND SPECIES NAME OF CROP

Glycine max

16. FAMILY NAME (Botanical)

Leguminosae

17. IS THE VARIETY A FIRST GENERATION HYBRID?

☐ YES☒ NO

18. CHECK APPROPRIATE BOX FOR EACH ATTACHMENT SUBMITTED (Follow instructions on reverse)

- a. ☒ Exhibit A. Origin and Breeding History of the Variety
b. ☒ Exhibit B. Statement of Distinctness
c. ☒ Exhibit C. Objective Description of Variety
d. ☐ Exhibit D. Additional Description of the Variety (Optional)
e. ☒ Exhibit E. Statement of the Basis of the Owner's Ownership
f. ☒ Voucher Sample (2,500 viable untreated seeds or, for tuber propagated varieties, verification that tissue culture will be deposited and maintained in an approved public repository)
g. ☒ Filing and Examination Fee (\$2,450), made payable to "Treasurer of the United States" (Mail to the Plant Variety Protection Office)

19. DOES THE OWNER SPECIFY THAT SEED OF THIS VARIETY BE SOLD AS A CLASS OF CERTIFIED SEED? See Section 83(a) of the Plant Variety Protection Act

☐ YES (If "yes", answer items 20 and 21 below)☒ NO (If "no," go to item 22)

20. DOES THE OWNER SPECIFY THAT SEED OF THIS VARIETY BE LIMITED AS TO NUMBER OF GENERATIONS?

☐ YES☐ NO

21 IF "YES" TO ITEM 20, WHICH CLASSES OF PRODUCTION BEYOND BREEDER SEED?

☐ FOUNDATION☐ REGISTERED☐ CERTIFIED

22. HAS THE VARIETY (INCLUDING ANY HARVESTED MATERIAL) OR A HYBRID PRODUCED FROM THIS VARIETY BEEN SOLD, DISPOSED OF, TRANSFERRED, OR USED IN THE U. S. OR OTHER COUNTRIES?

☒ YES

U.S. January 1999

IF YES, YOU MUST PROVIDE THE DATE OF FIRST SALE, DISPOSITION, TRANSFER, OR USE FOR EACH COUNTRY AND THE CIRCUMSTANCES. (Please use space indicated on reverse.)

23. IS THE VARIETY OR ANY COMPONENT OF THE VARIETY PROTECTED BY INTELLECTUAL PROPERTY RIGHT (PLANT BREEDER'S RIGHT OR PATENT)?

U.S. Patent (pending)

Application No. 09/231,756

Filing Date: 1/15/99

☒ YES☐ NO

IF YES, PLEASE GIVE COUNTRY, DATE OF FILING OR ISSUANCE AND ASSIGNED REFERENCE NUMBER. (Please use space indicated on reverse.)

24. The owners declare that a viable sample of basic seed of the variety will be furnished with application and will be replenished upon request in accordance with such regulations as may be applicable, or for a tuber propagated variety a tissue culture will be deposited in a public repository and maintained for the duration of the certificate.

The undersigned owner(s) is(are) the owner of this sexually reproduced or tuber propagated plant variety, and believe(s) that the variety is new, distinct, uniform, and stable as required in Section 42, and is entitled to protection under the provisions of Section 42 of the Plant Variety Protection Act.

Owner(s) is(are) informed that false representation herein can jeopardize protection and result in penalties.

SIGNATURE OF OWNER

Timothy R. Kain

SIGNATURE OF OWNER

NAME (Please print or type)

Timothy R. Kain

NAME (Please print or type)

CAPACITY OR TITLE

Patent Scientist

DATE

5/20/99

CAPACITY OR TITLE

DATE

Origin and Breeding History
CX414cRR

Soybean cultivar CX414cRR has superior characteristics and is a bulk of sixteen F3 plant selections from the cross Asgrow 4138 x [CX445 (CX411 x CX415-40-3)]. CX414cRR was developed as follows:

Fall 1992	The cross CX415 x A5403-40-3-2 was made. A5403 is an Asgrow variety that has had a gene inserted via transformation that confers resistance to the herbicide glyphosate.
Winter 1993	Monsanto made BC1.
Summer 1993	Monsanto made BC2.
Winter 1994	CX411 was crossed with BC2 of CX415 x 40-3-2.
Summer 1994	Modified BC3F1 generation was grown CX445 was crossed with Modified BC3 of CX411 x CX415-40-3-2
Winter 1995	Modified BC4F1 and BC4F2 generations were grown
Summer 1995	Modified BC4F3 generation was grown Asgrow 4138 was crossed with Modified BC4F3 of [CX445 (CX411 x CX415-40-3)]
Winter 1996	The F1 and F2 generations were grown.
Summer 1996	The F3 generation was grown
Winter 1997	The F4 and F5 seed were grown
Summer 1997	F6 seed was grown.
Winter 1998	F7 and F8 seed were grown
Summer 1998	F9 seed was grown
November 1998	The variety was commercialized as CX414cRR.

Statement of Stability and Uniformity

Soybean variety CX414cRR has been judged to be uniform for breeding use and testing after three (3) generations of selfing. CX414cRR was reproduced and judged uniform and stable for an additional six (6) generations.

Statement of Variants

CX414cRR shows no variants other than what would normally be expected due to environment or that would occur for almost any characteristic during the course of repeated sexual reproduction.

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Novelty Statement

DEKALB Genetics Corporation believes that CX414cRR is most similar to soybean variety CX445. However, CX414cRR differs from this cultivar in the following trait: CX414cRR has tan pods and is resistant to glyphosate whereas, CX445 has brown pods and is susceptible to glyphosate.

EXHIBIT C

OBJECTIVE DESCRIPTION OF VARIETY

Soybean Variety CX414cRR
Experimental Name: EX841BRR

APPLICANT:	DEKALB Genetics Corporation 3100 Sycamore Road DeKalb, IL 60115
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1. SEED SHAPE: (1) Spherical
2. SEED COAT COLOR: (Mature Seed) (1) Yellow
3. SEED COAT LUSTER: (Mature Hand Shelled Seed) (1) Dull
4. SEED SIZE: (Mature Seed) 16.8g/100 seed
5. HILUM COLOR: (Mature Seed) (6) Black
6. COTYLEDON COLOR: (Mature Seed) (1) Yellow
7. SEED PROTEIN PEROXIDASE ACTIVITY: (2) High
8. SEED PROTEIN ELECTROPHORETIC BAND: -
9. HYPOCOTYL COLOR: (2) Green with Bronze Band
10. LEAFLET SHAPE: (3) Ovate
11. FLOWER COLOR: (1) White
12. POD COLOR: (1) Tan
13. PLANT PUBESCENCE COLOR: (3) Tawny
14. PLANT HABIT: (3) Indeterminate
15. MATURITY GROUP: (7) IV
16. MATURITY SUBGROUP: (1)

17. **DISEASE REACTION:** (0=Not Tested; 1=Susceptible; 2=Resistant; 3=Tolerant)

Bacterial Diseases:

Bacterial Pustule: 0
Bacterial Blight: 0
WildfireBlight: 0

Fungal Diseases:

Brown Spot: 0
Frogeye Leaf Spot

Race 1: 0 Race 2: 0 Race 3: 0
Race 4: 0 Race 5: 0 Race 6: 0
Other: 0

Target Spot: 0
Downy Mildew: 0
Powdery Mildew: 0
Brown Stem Rot: 0
Stem Canker: 0
Pod and Stem Blight: 0
Purple Seed Stain: 0
Rhizoctonia Root Rot: 0
Phytophthora Root Rot (1)

Race 1: 0 Race 2: 0 Race 3: 0 Race 4: 0
Race 5: 0 Race 6: 0 Race 7: 0 Race 8: 0
Race 9: 0 Race 10: 0 Race 11: 0 Race 12: 0
Race 13: 0 Race 14: 0 Race 15: 0 Race 16: 0
Race 17: 0 Race 18: 0 Race 19: 0 Race 20: 0
Race 21: 0 Race 22: 0 Race 23: 0 Race 24: 0
Race 25: 0 Race 26: 0 Other: 0

Viral Diseases:

Bud Blight: 0
Yellow Mosaic: 0
Cowpea Mosaic: 0
Pod Mottle: 0
Seed Mottle: 0

EXHIBIT C

CX414cRR

Page three.

9900278

Nematode Diseases:

Soybean Cyst Nematode

Race 1: 0

Race 2: 0

Race 6: 0

Race 9: 0

Race 3: 2*

Race 5: 0

Race 14 (formerly Race 4): 0

Lance Nematode:

0

Southern Root Knot Nematode:

0

Northern Root Knot Nematode:

0

Peanut Root Knot Nematode:

0

Reniform Nematode:

0

Other:

0

* Moderately Resistant

20. PHYSIOLOGICAL RESPONSES:

Iron Chlorosis on Calcareous Soil: 0

Other: 0

21. INSECT REACTION:

Mexican Bean Beetle: 0

Potato Leaf Hopper: 0

Other: 0

22. HERBICIDE RESISTANCE:

Metribuzin: 0

Sulfonylurea: 0

Roundup: 3

Other: 0

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U.S. DEPARTMENT OF AGRICULTURE
AGRICULTURAL MARKETING SERVICE**EXHIBIT E**
STATEMENT OF THE BASIS OF OWNERSHIP

The following statements are made in accordance with the Privacy Act of 1974 (5 U.S.C. 552a) and the Paperwork Reduction Act (PRA) of 1995.

Application is required in order to determine if a plant variety protection certificate is to be issued (7 U.S.C. 2421). Information is held confidential until certificate is issued (7 U.S.C. 2426).

1. NAME OF APPLICANT(S) DEKALB Genetics Corporation	2. TEMPORARY DESIGNATION OR EXPERIMENTAL NUMBER EX841BRR	3. VARIETY NAME CX414cRR
4. ADDRESS (Street and No., or R.F.D. No., City, State, and ZIP, and Country) 3100 Sycamore Road DeKalb, IL 60115 U.S.A.	5. TELEPHONE (include area code) (815) 758-9281	6. FAX (include area code) (815) 758-4106
7. PVPO NUMBER		

8. Does the applicant own all rights to the variety? Mark an "X" in appropriate block. If no, please explain. ☒ YES ☐ NO

9. Is the applicant (individual or company) a U.S. national or U.S. based company?
If no, give name of country ☒ YES ☐ NO

10. Is the applicant the original owner? ☒ YES ☐ NO If no, please answer one of the following:

a. If original rights to variety were owned by individual(s), is (are) the original owner(s) a U.S. national(s)?
☐ YES ☐ NO If no, give name of country

b. If original rights to variety were owned by a company(ies), is(are) the original owner(s) a U.S. based company?
☐ YES ☐ NO If no, give name of country

11. Additional explanation on ownership (if needed, use reverse for extra space):

PLEASE NOTE:

Plant variety protection can be afforded only to owners (not licensees) who meet one of the following criteria:

1. If the rights to the variety are owned by the original breeder, that person must be a U.S. national, national of a UPOV member country, or national of a country which affords similar protection to nationals of the U.S. for the same genus and species.
2. If the rights to the variety are owned by the company which employed the original breeder(s), the company must be U.S. based, owned by nationals of a UPOV member country, or owned by nationals of a country which affords similar protection to nationals of the U.S. for the same genus and species.
3. If the applicant is an owner who is not the original owner, both the original owner and the applicant must meet one of the above criteria.

The original breeder/owner may be the individual or company who directed final breeding. See Section 41(a)(2) of the Plant Variety Protection Act for definition.

According to the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number. The valid OMB control number for this information collection is 0581-0055. The time required to complete this information collection is estimated to average 10 minutes per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information.

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To file a complaint, write the Secretary of Agriculture, U.S. Department of Agriculture, Washington, D.C. 20250, or call 1-800-245-6340 (voice) or (202) 720-1127 (TDD). USDA is an equal employment opportunity employer.

STD-470-E (07-97) (Destroy previous editions).

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